agreement among the XO, S-3, FSCOORD, and S-2.

The S-3 informs the battle staff of the resources available for targeting and briefs future operations. We found that at the JRTC the assets we thought we had available were often non-mission capable for any number of reasons. For example, with all the activities in fighting the current battle, a report that the TLQ-17 was only 75 percent effective because the air conditioning unit was inoperable, or that a low-level voice intercept system was inoperable for want of a Class IX repair part, might go unnoticed in the TOC. But the loss of the jamming or voice collecting capability was totally unacceptable. Therefore, recognizing the relevance of these problems at this point in the targeting meeting greatly improved our system readiness and the emphasis on getting the right repairs done on the equipment.

The next two steps, target nominations and BOS crosswalk, are open dialogue periods and are essential for the success of the targeting process. This dialogue begins the actual resynchronization of the brigade fight. The S-2 provides his insight into the enemy order of battle for target nomination. The FSCOORD provides his experienced judgment for analysis and both target acquisition and servicing. The other BOS representatives provide their expertise and knowledge of friendly and enemy systems and capabilities. The XO or S-3 keeps the focus of the discussion within the possibilities of friendly unit operations. Subordinate unit commanders usually already have a plan for future operations, and the targeting process must fit into their decision cycle. More important, subordinate battalion commanders must have an understanding of and confidence in the brigade targeting process. At the conclusion of the meeting, the S-2 reviews the update to his collection plan, the S-3 confirms these taskings, and, back inside the TOC, the decision support template is updated.

The targeting meeting produces several required actions:

The targeting meeting record sheet is used to record taskings assigned during the meeting. These taskings must quickly be converted to a FRAGO with specific taskings to units. At the bottom of the sheet is a checklist to ensure that the taskings are assigned and executed. The FSO informs the artillery battalion S-3 of the meeting's results. Additionally, he sends the division FSE a record of the meeting as input to the division's next targeting meeting. We found it beneficial during BCTP to send a copy of the record sheet to our liaison officer in the division main command post. He ensured that brigade input, requests, and interests were heard and represented at the division's targeting meeting. The Air Force liaison officer nominates close air support targets up his chain of command for inclusion in the next air tasking order. Finally, the brigade S-3 updates the synchronization matrix and follows up on the FRAGO to ensure that the brigade fight is resynchronized.

Great plans frequently last as long as first contact with the enemy. Therefore, the key to success on the battlefield is the implementation of a process that continually updates the synchronization of brigade task force assets that mass all lethal and nonlethal systems on the enemy at the decisive point and works within the maneuver commander's intent. Clearly, the implementation of the targeting process is the most important step a brigade can take to maintain the synchronization of its units on the battlefield.

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The Logistical Integration
Of Heavy and Light Forces

CAPTAIN DAVID B. HILBURN

As long as infantry operations include both heavy (mechanized and armor) and light (airborne, air assault, and light infantry) units, there will be a need to integrate the logistic systems that support the two forces. The differences found in the light-heavy combined arms team contribute to the flexibility of combat power, but they also challenge logistics and supportability.

The pertinent Field Manuals (FMs)—71-123, *Tactics and Techniques for Combined Arms Heavy Forces: Armored Brigade, Battalion/Task Force, and Company Team,* 7-20, *The Infantry Battalion,* and 7-10, *The Infantry Rifle Company*—contain very little practical information on how to manage the heavy-light combat service support (CSS) environment. Once a system is in place, however, the process does not have to be difficult.

The logistical integration of forces of different compositions is best coordinated and planned at brigade level. There are several key issues in making this process work:

- Identify the key players.
- Address the command relationship.
- Know limitations and capabilities.
- Decide what structures will be used to support the mixed force.

The brigade combat team's logistical planning and coordination contribute to the success or failure of logistics execution all the way down to platoon level. A battalion detached from its parent unit is largely dependent on the brigade to which it is attached.

At the brigade level, the key players are the brigade executive officer (XO), S-4, FSB (forward support battalion) support operations officer, and the FSB commander. These key leader logisticians can make the cross-attachment easier for the attached unit. The senior brigade staff must be intimately familiar with the composition of the cross-attached force, know the limitations and capabilities of the unit, and have a concept for the integration of support.

At the battalion level, key individuals in the successful execution of logistical support are the battalion XO, S-4, supply and transportation (S&T) platoon leader, headquarters company (HHC) commander, and HHC XO.

After the key individuals are identified, establishing the command relationship between cross-attached units is the next step on the way to heavy-light CSS integration. An "attached" relationship is easier to support when a light unit is attached to heavy forces. An attached unit receives logistical support from the unit to which it is attached. Because light forces do not have the logistical support assets heavy forces have, they can be more easily absorbed by the heavy force in terms of transportation and resupply.

An "operational control" relationship is easier to support from heavy to light than from light to heavy. The cross-attachment lasts only for the duration of the mission, and each unit brings its own logistics package to support it throughout that mission. A heavy force would bring its own refuel system, ammunition-carrying vehicles, and maintenance vehicles. When a light unit is under the operational control of a heavy force, logistical concessions may have to be made to the light force, depending on the conditions (long movements, longer duration, adverse weather). If a heavy force is attached to a lighter force, special considerations must be made for petroleum products, ammunition, and hauling capabilities. Another way of tailoring a command relationship based on the logistical situation of a force is either operational control or attached, plus or minus a certain class of supply or service.

Once the command relationship is decided, the brigade S-3 or the brigade S-4 should notify both the attached and the detached battalion S-4s so that logistical preparations can begin. The implied task is that the brigade S-4, who is involved with the decision making process, can recommend a force composition based on a unit's logistical status. Making a recommendation for command relationships also requires that the brigade S-4 have a clear picture of the logistical capabilities of both the light and heavy forces.

Making a recommendation for command relationships also requires a clear picture of the logistical capabilities of both the light and heavy forces.

The next element that makes heavy-light logistics work is a clear understanding of each type of unit's organic support and its consumption rates on critical classes of supply. A review of the modified tables of organization and equipment (MTOE) and the logistical status (LOGSTAT) report helps personnel understand logistical capabilities. This must include on-hand and mission-capable equipment. Where a cross-attachment is done between battles or with little notice, the detached unit should give the attached headquarters a copy of its LOGSTAT immediately and notify the attached commander and S-4 of any critical logistics issues.

A clear understanding of who uses what type of supplies and how fast they are consumed helps determine the support structure that should be used for solving the logistics integration problem. Light forces generally use smaller amounts of Classes III and IV but use them faster, and heavy forces do not have the same number of soldiers as a light unit. The composition of forces, combined with TOE equipment, contributes to different usage rates for different classes of supply. Consumption rates and storage capacity in the field and combat trains should be addressed at brigade level in terms of each unit's basic load of any class of supply, what can be issued, where the non-issued stocks are to be kept, how fast they can be brought forward, and how often they must be replenished.

Light forces are more "push" oriented, while heavy forces can have the luxury of "pulling" resupply. A light infantry company can carry only so many 60mm mortar rounds, but it can fire 400 or more in a single engagement, then have to have more brought forward. A heavy or armored force may shoot fewer main gun or TOW rounds, but these rounds require the larger hauling capabilities organic to the battalion task force and are therefore "pulled."

After determining the composition of forces, consumption rates, and needed supplies, the battalion logistical personnel—assisted by the brigade logistical planners—can coordinate the best possible structure for the total brigade force. When specific mission-related issues are addressed, solutions may become apparent when considering logistical alternatives.

The following are some specific questions that should be considered when attaching a heavy unit to a light unit:

- Who is providing fuel and where will it be?
- In what capacity container is the fuel coming—tank and pump unit (TPU), heavy expanded mobility tactical truck (HEMTT), or blivets?
- What ammunition hauling assets are available?
- What specific ammunition is required for the mission (25mm, TOWs, 105mm or 120mm gun rounds)?
- Who has recovery assets? What are they—5-ton wrecker or HMMWV (contact team)?

• What maintenance assets are available to help?

• What are attached "slice" units bringing for specific maintenance support?

• What decontamination assets will be available? (Light forces have very few.)

• What assets are available for digging fighting positions?

• What Class III package products will be available?

• Who is allocating ammunition?

• Who is taking care of LOGPACs (logistical packages)?

Specific issues to be addressed by a light force attached to or under the operational control of a heavy force:

• How are personnel moved for long movements, and who will move them? Can a five-ton truck be provided? Can troops ride in Bradley fighting vehicles? Can the forward or main support battalion push transportation assets forward?

• What are specific ammunition needs—60mm or 81mm mortars? Who can push them forward, and how can the heavy forces push them in a LOGPAC or for emergency resupply?

• Does the unit break fuel down into smaller amounts for resupply (light forces use five-gallon cans or fuel blivets), or can a HEMTT with tank/pump unit (TPU) be pushed forward by the heavy force?

• How to configure or move barrier material to defensive positions. Consider preconfigured packages designed with platoon defense in mind so that Class IV is on hand for survivability when a company or platoon-sized element is attached.

Light forces generally use smaller amounts of Classes III and IV but use them faster, and heavy forces do not have the same number of soldiers as a light unit.

• How do we bring batteries for the TOW or other assets such as AN/PVS 7A/B night vision goggles forward?

• Can ammunition be stockpiled?

• How do we provide medical recovery assets for a larger number of personnel? Can an M577 ambulance assist the advanced trauma life support teams?

• Is aerial resupply available?

• Who is allocating or drawing our ammunition?

• Who is moving and compiling LOGPAC or push packages?

Once a unit reaches an understanding of the logistical situation, a support structure can be formed. Gaining or detached units should agree, right after receipt of a mission or upon cross attachment, what will be used for logistical integration.

Generally, the following suggestions will help, even if no logistical integration has occurred:

• The detached unit gives LOGSTAT to gaining unit upon cross-attachment.

• Prepare a memorandum of agreement for support at the brigade level for the attached battalions well in advance of a real-world contingency or training center rotation, if possible.

• If liaison officers are exchanged, they must be knowledgeable of the CSS plan and attend all CSS rehearsals and maneuver rehearsals.

• Heavy units should be responsible for manning patient transfer points and establish them close to light supply routes.

• Battalion S-4s should exchange CSS graphics/administrative logistical net frequencies and CSS standing operating procedures.

• The S-4 with the detached unit calls the gaining unit on the brigade or attached S-4's internal administrative logistical net to make sure logistical coordinations have been made.

• The S-4 of the detached unit calls the unit on its internal net to ensure that they are receiving coordinated support.

• Never assume your cross-attached unit has support. Check on it.

• All internal slice elements bring 15 days of supply of prescribed load list items and the applicable -10 manuals.

The following are some techniques for logistical support for LOGPACs or push packages:

• The detached supply sergeant works out of the gaining unit's field trains, pushing all supplies with the attached unit. This is the best way to ensure that a unit receives all needed supplies. While supply sergeants may be away from parent organization field trains, coordination is still possible even within the largest brigade support area.

• LOGPACs or push packages are formed at the parent battalion field trains but set out with the attached unit's convoys for LOGPACs. Supply sergeants and other organic CSS assets are under the control of the Headquarters Company commander, but the transportation of supplies, security, and times and places for forward LOGPACs must be coordinated.

• The gaining unit accepts all responsibility for providing support to the attached unit (this is the least popular solution). Command and control for the LOGPACs are from the gaining unit, but a gaining unit's CSS personnel must be dedicated to ensuring that these vital LOGPACs are put together. The detached unit's Headquarters Company commander and supply sergeants are left out of the direct communication loop and receive second-hand information on the logistical status of a unit. Still, this may be a viable option if cross attachment happens very quickly or no supply sergeant or CSS personnel are available from the detached unit.

Once an understanding of the logistical situation has been reached, a support structure can be formed.

Logistical planners must make sure there is enough material to support their organic units and must understand the CSS concept of support to assist their detached units as well as the units attached to them. Planning and coordination ensure that the total force can sustain itself for combat.

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